

# Work Order ID 83338

April-17-12 2:15:51 PM

**\*83338\***

Page 1

Item ID: D3564-1

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Wearshoe

Start Date: 17/04/2012 Start Qty: 12.00

**\*12\***

Cust Item ID:

Required Date: 01/05/2012 Req'd Qty: 12.00

**\*12\***

Customer:

Reference:

Approvals: Process Plan: *MLJ*

Date: *12/04/17* Tooling:

Date:

Run Start **\*NR1\***

QC:

Date: SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D3564	Rev D
-------	-------

100

0.00

**\*100\***

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3564 \*\*\*\*\* (D3564-1F) \*\*\*\*\* Dwg Rev: *P* Prog  
Rev: *D* 2-Deburr if necessary

*B2-4-17*

*(12)*

110

QC2- Inspect parts off machine FAI/FAIB

0.00

**\*110\***

QC

Memo

0.00

Quality Control

*B2-4-17*

120

QC8- Inspect parts - second check

0.00

**\*120\***

QC

Memo

0.00

Quality Control

*5/2/12/18*

*(12)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 83338

\*83338\*

Page 2

April-17-12 2:15:51 PM

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Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Item Name: Wearshoe

Stop

\*NS2\*

Start Date: 17/04/2012 Start Qty: 12.00

\*12\*

Cust Item ID:

Required Date: 01/05/2012 Req'd Qty: 12.00

\*12\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

0.00

\*130\*

NC BRAKE

Brake NC

Memo

0.00

Brake NC

Deburr if necessary Form on Brake as per Dwg D3564 using Jigs DT 8179 and DT 8155 Form Joggles (2) as per Dwg D3564 on brake using Jig DT 8157

(12)

8

88  
12/6/19

140

QC5- Inspect part completeness to step on W/O

0.00

\*140\*

QC

Memo

0.00

Quality Control

Ensure joggle as per dwg D3429

8.12/4/12

(12)

150

Large Fab

0.00

\*150\*

Large Fab

Memo

0.00

Large Fab

Qty Description Batch A/R 2059B Hardcoat  
m121175 Weld hardcoat as per Dwg D3437

(12) m121175 / MAL 12-04-26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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# Work Order ID 83338

**\*83338\***

Page 3

April-17-12 2:15:51 PM

Item ID: D3564-1

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Wearshoe

Stop

**\*NS2\***

Start Date: 17/04/2012 Start Qty: 12.00

**\*12\***

Cust Item ID:

Required Date: 01/05/2012 Req'd Qty: 12.00

**\*12\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

QC10- Inspect visual per QSI004- ground welds

0.00

**\*160\***

QC

Memo

0.00

Quality Control

170

QC5- Inspect part completeness to step on W/O

0.00

**\*170\***

QC

Memo

0.00

Quality Control

180

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

**\*180\***

Powdercoat

Memo

0.00

Powder Coating

START TIME:

FINISH TIME:

OVEN TEMPERATURE:

3:30

3200F

4:00

M117338

17

12X

M/L

12/4/30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*83338\***

Page 4

April-17-12 2:15:51 PM

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**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Wearshoe

Stop

**\*NS2\***

Start Date: 17/04/2012 Start Qty: 12.00

**\*12\***

Cust Item ID:

Required Date: 01/05/2012 Req'd Qty: 12.00

**\*12\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

190

QC3- Inspect Part Finish

0.00

**\*190\***

QC

Memo

0.00

Quality Control

*B. d. B. B. H. 30*

200

Identify as per dwg & Stock Location: *FD1*

0.00

**\*200\***

Packaging

Memo

0.00

Packaging

*12x4 M. H. 12/04/30*

210

QC21- Final Inspection - Work Order Release

0.00

**\*210\***

QC

Memo

0.00

Quality Control

*12/5/10*

*ME 12-05-01*

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



# Picklist Print

April-17-12 2:15:54 PM

Page 1

Work Order ID: 83338

\*83338\*

Parent Item: D3564-1

\*D3564-1\*

Parent Item Name: Wearshoe

Start Date: 17/04/2012

Required Date: 01/05/2012

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP Rev:A New Issue 07-03-08 ec  
IPP Rev:B As per Rev C 07-07-09 JLM  
IPP Rev:C As per Rev D 07-09-09 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA		Purchased	No			100	sf	231.6520	1.41	17.81053			

\*M304S16GA\*

304/316 Sheet .063

\*\*

B(2-4-17

Location

Loc Qty

Loc Code

MAT020

231.652

120866

38.446

120877

137.326

121070

55.88

121070

(12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	83338
<b>Description:</b> Wearshoe		<b>Part Number:</b>	D3564-1
<b>Inspection Dwg:</b> D3564 <b>Rev:</b> D		<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article      ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.227	+/-0.010	3.230	2		V	
2.432	+/-0.010	2.436	2		V	
2.50	+/-0.030	2.50	2		V	
6.000	+/-0.010	6.000	1		T	
12.104	+/-0.010	12.104	2		T	
18.000	+/-0.010	18.000	2		T	
18.00	+/-0.030	18.00	2		T	
9.00	+/-0.030	9.00	2		T	
11.50	+/-0.030	11.50	1		T	
0.300 x 0.300	+/-0.010	308 x 306	2		V	
Ø0.188	+0.005/-0.001	.193	1			
R0.375	+/-0.010	.375	2		R.G.	
0.063	+/-0.010	.061	2		V	

<b>Measured by:</b> B	<b>Audited by:</b> S	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 12-4-17	<b>Date:</b> 12/04/18	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	07.09.06	New Issue	KJ/JLM	
B	09.05.07	Dwg Rev updated	KJ/EC	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

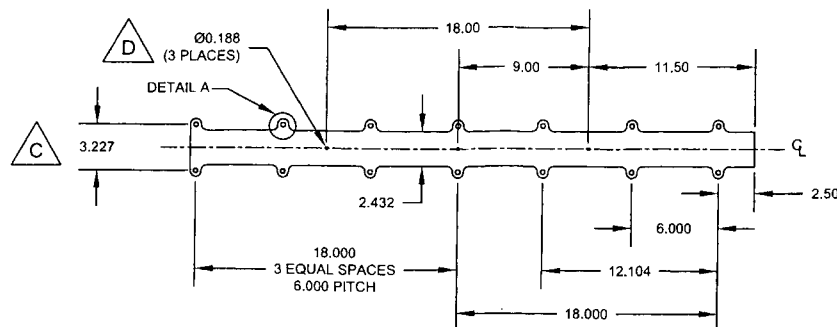
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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

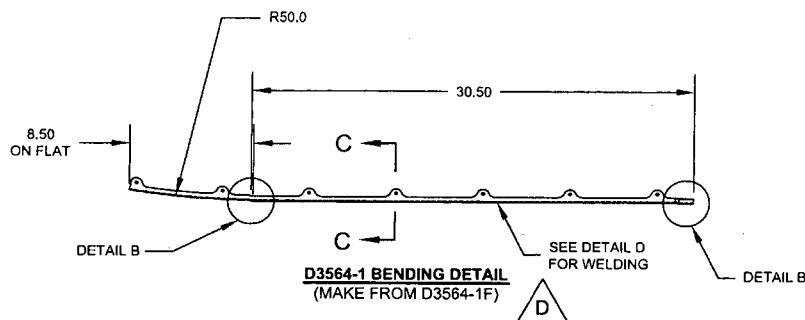
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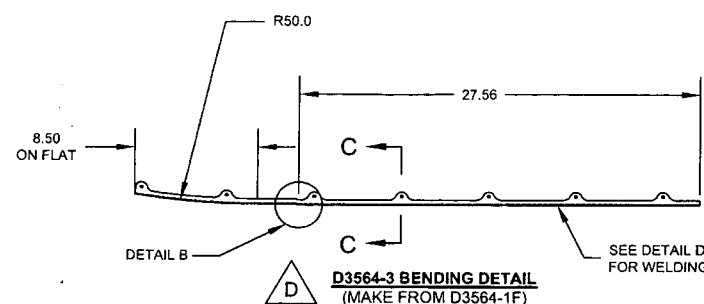
**D3564-1F FLAT PATTERN**

**RELEASED**

07.09.04



**D3564-1 BENDING DETAIL**  
(MAKE FROM D3564-1F)



**D3564-3 BENDING DETAIL**  
(MAKE FROM D3564-1F)

**UNDER REVIEW**  
11/04/17  
Trust change  
OK 11/1/18

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 03338 MJS  
12/04/17

**D3564-1/-3/-5/-7/-9/-11/-13/-15 WEARPLATE NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 16 GAUGE (0.063 THICK)  
(REF DART MATERIAL SPEC M304S16GA)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF 4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: SEE TABLE IN ZONE A3
- 8) WELD PER DART QSI 004
- 9) SEE PG 3 FOR SECTIONS AND DETAILS
- 10) PARTS ARE SYMMETRIC ABOUT C

WEIGHTS:	
D3564-1	1.85 lbs
D3564-3	1.85 lbs
D3564-5	1.93 lbs
D3564-7	1.26 lbs
D3564-9	1.85 lbs
D3564-11	1.85 lbs
D3564-13	0.38 lbs
D3564-15	0.80 lbs

D	UPDATE DRAWING TEMPLATE; CHANGE ALL (TYP X PLS) TO (X PLACES); PG1 A8: UPDATE NOTES; PG1 A8, PG3 B5,C5: ADD D3564-15; PG1 B6,B3: D3564-1/-3 WAS ONE FIGURE; PG2 A7,A3: D3564-9/-11 WAS ONE FIGURE; PG2 A7,A3: D3564-9/-11 WAS ON PG1; PG3 B8,C8: D3564-13 WAS ON PG2; PG3 D2: WELDING DETAIL WAS ON PG1 PG3 A5,7,B2: RELOCATE DETAILS AND SECTION; PG3 A5,7,B2: INCREASE DETAIL AND SECTION SIZE	CB	07.08.21
C	MOVE TAB OUTBOARD, DETAIL A	PH	07.04.17
B	ADD AMS 5513 AND AMS 5524	PH	07.03.20
A	NEW ISSUE	PH	06.12.18
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	CB		
CHECKED	PH		
MFG. APPR.	PH		
APPROVED	PH		
DE APPR.	PH		
DATE	07.08.21		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. D3564		REV. D SHEET 1 OF 3	
TITLE WEARSHOE		SCALE 1:	
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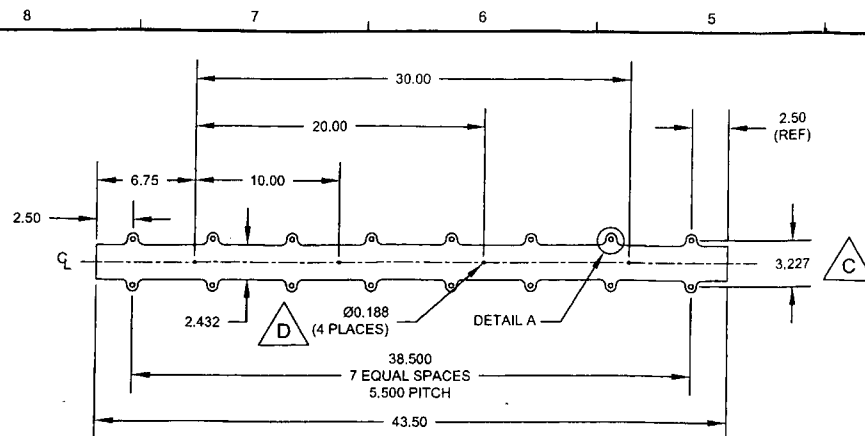
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

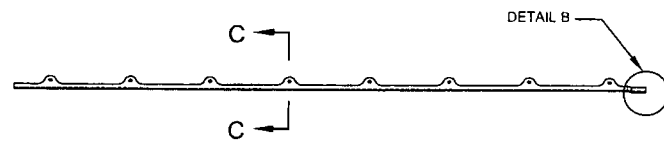
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

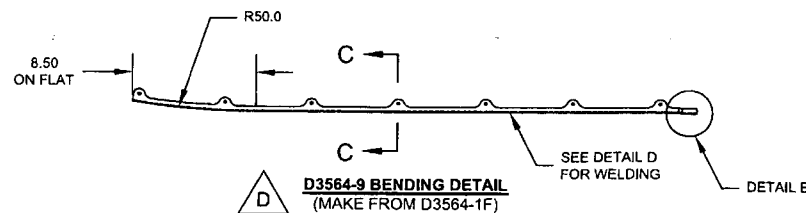
**NOTE:** Date & initial all entries



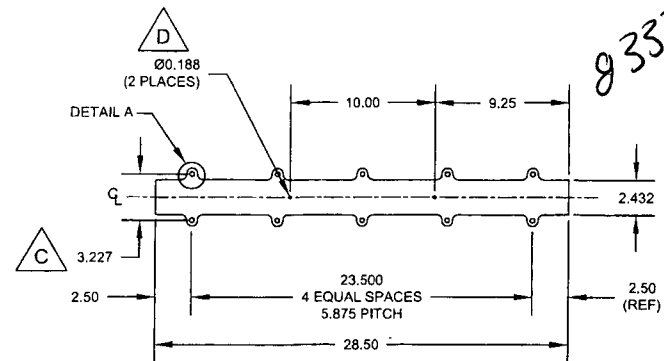
**D3564-5F FLAT PATTERN**



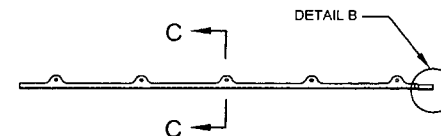
**D3564-5 BENDING DETAIL**  
(MAKE D3564-5 FROM D3564-5F)



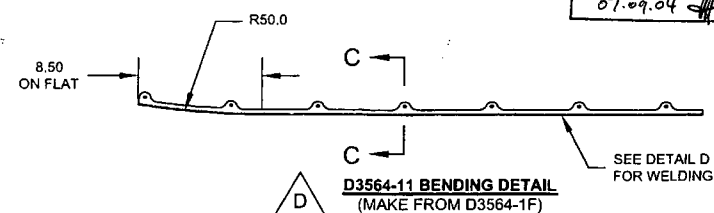
**D3564-9 BENDING DETAIL**  
(MAKE FROM D3564-1F)



**D3564-7F FLAT PATTERN**



**D3564-7 BENDING DETAIL**  
(MAKE D3564-7 FROM D3564-7F)



**D3564-11 BENDING DETAIL**  
(MAKE FROM D3564-1F)

**UNDER REVIEW**  
OK 07.11.28

**RELEASED**  
07.09.04

DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN	CB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.	PH	D3564	SHEET 2 OF 3
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	WEARSHOE	1:8
DATE	07.08.21	COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

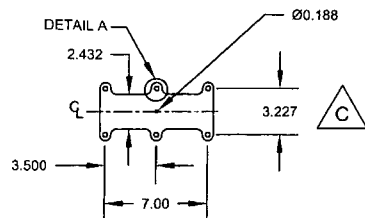
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

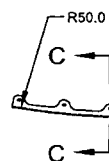
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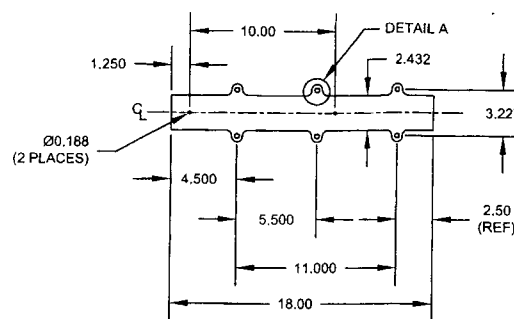




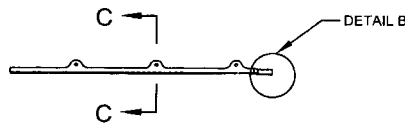
**D3564-13F FLAT PATTERN**



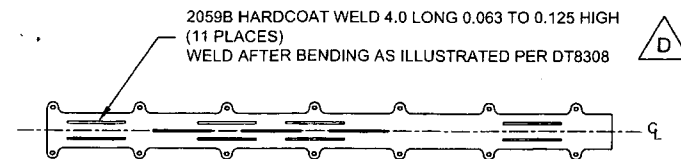
**D3564-13 BENDING DETAIL**  
(MAKE D3564-13 FROM D3564-13F)



**D3564-15F FLAT PATTERN**



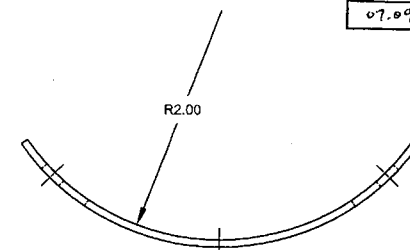
**D3564-15 BENDING DETAIL**  
(MAKE D3564-15 FROM D3564-15F)



**DETAIL D**  
(D3564-1/-3/-9/-11 WELDING DETAIL)

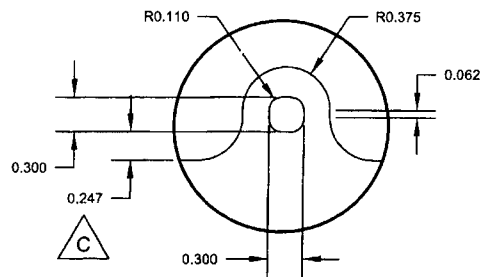
**RELEASED**

07.09.04

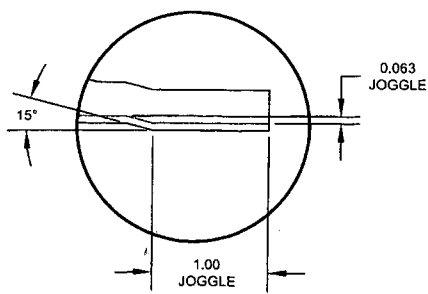


**SECTION C-C**  
SCALE 1:1

**UNDER REVIEW**  
OK 07.11.28



**DETAIL A**  
SCALE 1:1



**DETAIL B**  
SCALE 1:1

DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN	CB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO. D3564	REV. D
MFG. APPR.	PH		SHEET 3 OF 3
APPROVED	PH	TITLE WEARSHOE	SCALE 1:8
DE APPR.	PH		
DATE	07.08.21		

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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries